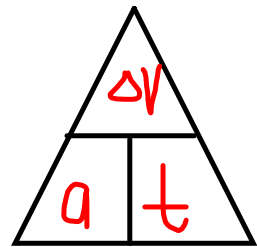


Acceleration = change in velocity
time interval



$$a = \frac{\Delta v}{t} \quad a = \frac{v_f - v_i}{t}$$

→ Δv = change in velocity

v_f = final velocity

v_i = initial velocity

t = time of observation

Units (speed/s)
m/s/s or m/s²

km/h/s

miles/h/s

Canadian Alpine Skiing Olympic Kelly VanderBeek moves down a hill at 1.8 m/s near the top of the hill, and then 4.2 s later she will be travelling at 8.3 m/s. What is her average acceleration?



$$\triangle \frac{\Delta V}{a \times t}$$

$$\Delta V = \frac{8.3 - 1.8}{6.5 \text{ m/s}}$$

$$a = ?$$

$$t = 4.2 \text{ s}$$

$$a = \frac{\Delta V}{t}$$

$$a = \frac{6.5 \text{ m/s}}{4.2 \text{ s}}$$

$$a = 1.5 \text{ m/s/s} \text{ or } 1.5 \text{ m/s}^2$$

